

II. Amendments To The Claims

1-52 (Cancelled).

53. (Currently amended) An electrochemical system comprising:

an electrochemical cell stack having a layering of a plurality of electrochemical cells and including an electrochemically active region, said electrochemical cell stack being under mechanical compression in a direction of said layering of said plurality of electrochemical cells;

a plurality of metallic bipolar plates separating said electrochemical cells from one another, said bipolar plates including openings for media for said electrochemical cells, said openings extending in a direction parallel with said direction of said layering of said plurality of electrochemical cells, ~~and wherein said electrochemical cell stack is placed under mechanical compression in a direction of said layering;~~

at least one resilient bead arrangement around at least one of said openings, said at least one resilient bead arrangement being formed integrally as one piece with one of said plurality of metallic bipolar plates and including at least one flank extending in a direction that is not perpendicular to said direction of said layering of said plurality of electrochemical cells;

at least one perforation ~~on~~ through said at least one flank, said at least one perforation ~~for conducting the media~~ allowing the media that passes through said at

least one of said openings in a direction parallel with said direction of said layering of said plurality of electrochemical cells to pass through the flank of the bead in a direction perpendicular to said direction of said layering of said plurality of electrochemical cells.

54. (Previously presented) An electrochemical cell system according to claim 53, wherein said at least one perforation is circular, oval, or angular in cross section.

55. (Previously presented) An electrochemical cell system according to claim 53, further comprising:

a bead interior and a bead outer surface of said at least one resilient bead arrangement; and

a duct connected to said at least one perforation, wherein said duct is closed at least towards said beading outer surface and is connected to said beading interior.

56. (Previously presented) An electrochemical cell system according to claim 53, wherein said at least one perforation is open towards said electrochemically active region.

57. (Previously presented) An electrochemical cell system according to claim 53, wherein said at least one resilient bead arrangement further includes perforations on two flanks.

58. (Canceled)

59. (Previously presented) An electrochemical cell system according to claim 53, wherein at least a portion of said at least one resilient bead arrangement is coated with at least one of a microseal media and an elastomer.

60-61 (Cancelled)

62. (Previously presented) An electrochemical cell system according to claim 53, wherein said electrochemical system is a fuel cell system and said electrochemical cell stack is a fuel cell stack.

63. (Previously presented) An electrochemical cell system according to claim 53, wherein said electrochemical system is an electrochemical compressor system and said electrochemical cell stack is an electrochemical compressor stack.